

Verification Statement

I, WANG Ping at 10/F. Ocean Plaza, 158 Fuxingmennei Street, Beijing 100031, China, hereby declare that I am conversant with the Chinese and the English languages and that I am the translator of the document attached and certify that to be best of my knowledge and belief the following is a true and correct English translation of the specification contained in the CN priority Application No. 01142182.7 (Publication No. CN1343605A).

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A preventive method and self-adaptative anti-yaw pilot for preventing suicidal hijack by means of aircraft-carried GPS electronic map

This invention relates to a computerized anti-hijack automatic processor, by presetting the relevant values of the protected targets in an electronic map, by means of aircraft-carried global position techniques.

In Sep. 11, 2001, the World Trade Center in New York, US and some other places experienced tragic suicidal attacks by the hijackers, which brought an enormous shock to the world. To prevent such incidents from re-occurring in the world, in addition to strengthening the routine investigation and safety check, new techniques are needed to prevent such incidents. To this end, the inventor develops this invention.

This invention is developed in view of the above, and is characterized by using high-tech apparatus to strengthen the ability of the aircraft per se in preventing suicidal hijack.

- A. Sensors for identification of fingerprint, eyeground, voice of specific person, non-contact personal information chip, face and so on are provided on the manipulation device of an aircraft, for transmitting the acquired data.
- B. real-time data of pilot condition is transmitted from an automatic pilot and a manual pilot.
- C. The real-time data is output from an aircraft-carried global position device.
 - D. An electronic map database containing fixed data of limited

lowest height over the places and consecutive latitude and longitude values of each flight course, and a database containing data for automatic entering an aerodrome are programmed.

E. An electronic map database including fixed data of the limited lowest height and corresponding latitude and longitude value of the flight-prohibition ground destinations within the whole airspace is programmed.

F. Detected real-time height-to-ground data is output from the flight height detector.

The operation mode of the present invention will be described as follows.

During flight, various data mentioned in the above items A-F are input into the computer simultaneously and processed by the computer.

The data of A is acquired to identify the true and false of the identity and status of the driver.

If it is true, the aircraft accepts manual or automatic pilot control, and processing is performed in real-time to compare the data contained in B, C, E, F. At the same time, the aircraft monitors and executes the instructions of the flight-prohibition ground destinations preset in E, and switches to auto rectifying flight when necessary, and automatically transmits the GPS real-time position information of the aircraft to relevant ground supervision center.

If it is false, or the A is destroyed, the aircraft does not accept manual pilot control. At this time, it only operates and compares the data of B, C, D, E, F, executes the instructions pre-set in the three databases of D+E, performs automatic pilot actions, locks the flight

course, height, speed and the landing course. Protection for data of the B, C, D, E and F are set not to be changed. The GPS real-time position information of the aircraft and alarm are automatically transmitted to the nearest ground supervision center.

A, B, C, D, E, F have at least one copy. At least two copies of concealed power supply are provided so as to avoid being destroyed.

This invention has the following positive effects:

- 1. This invention technically enhances the function of the aircraft for preventing suicidal hijack, and performs corresponding automatic control. The true or false of the pilot is automatically identified. So the hijacker cannot pilot the hijacked aircraft. Thus incident as 9.11 suicidal hijack can be prevented, so as to strengthen public security.
- 2. This is a peaceful use of the high-techs similar to cruise missile.
 - 3. A good commercial prospect can be expected.

Claims

1. A self-adaptative anti-yaw pilot for preventing suicidal hijack by means of aircraft-carried GPS electronic map, wherein data is supplied from A, B, C, D, E and F to a computer for processing and control, characterized in that

if it is true, the aircraft accepts manual or automatic pilot control, and processing is performed in real-time to compare the data contained in B, C, E, F; at the same time, the aircraft monitors and executes the instructions of the flight-prohibition ground destinations preset in E, and switches to auto rectifying flight when necessary, and automatically transmits the GPS real-time position information of the aircraft to relevant ground supervision center;

if it is false, or A is destroyed, the aircraft does not accept manual pilot control; at this time, it only operates and compares the data of B, C, D, E, F, executes the instructions pre-set in the three databases of D+E, performs automatic pilot actions, locks the flight course, height, speed and the landing course; protection for data of the B, C, D, E and F are set not to be changed; the GPS real-time position information of the aircraft and alarm are automatically transmitted to the nearest ground supervision center; and

A, B, C, D, E, F have at least one copy. At least two copies of concealed power supply are provided so as to avoid being destroyed.

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Abstract

A self-adaptative anti-yaw pilot for preventing suicidal hijack by means of aircraft-carried GPS electronic map is disclosed. The data such as the identity of the pilot on the aircraft, real-time pilot status data, aircraft-carried GPS satellite position real-time data, real-time flight height data, pre-fixed electronic maps of the flight courses, data for automatically entering aerodromes, pre-fixed electronic maps of the flight-prohibition targets within the whole airspace, etc., are collected and processed by computers, so as to determine whether the aircraft is in a legal or illegal manipulation condition, and thereby automatically protect the flight security and public security. By means of high-techs, this invention enhances the ability of aircrafts for preventing suicidal hijacks. Thus incidents such as 9.11 suicidal hijack can be prevented. In case of a normal hijack, the pilot can still deal with such accident according to conventional flight routine, but the aircraft will automatically refuse flying to the flight-prohibition targets.